

SFO ID NO.1FIG.1 a

GAATTCCCCCAACAGAGCCAAGCTCTCCATCTAGTGGACAGGGAAGCTAGCAGCAAACC  
TTCCCTTCACTACAAAACCTTCATTGCTTGGCCAAAAAGAGAGTTAATTCAATGTAGACAT  
CTATGTAGGCAATTAAAAACCTATTGATGTATAAAACAGTTTGCAATTCATGGAGGGCAAC  
TAAATACATTCTAGGACTTTATAAAAGATCACTTTTTATTTATGCACAGGGTGAACAAG  
ATGGATTATCAAGTGTCAAGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGC  
M D Y Q V S S P I Y D I N Y Y T S E P C  
CAAAAATCAATGTGAAGCAAATCGCAGCCCGCCTCCTGCCTCCGCTCTACTCACTGGTG  
O K I N V K Q I A A R L L P P L Y S L V  
TTCATCTTTGGTTTTGTGGGCAACATGCTGGTCATCCTCATCCTGATAAACTGCAAAAGG  
F I F G F V G N M L V I L I L I N C K R  
CTGAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTTCCTT  
K S M T D I Y L L N L A I S D L F F L  
CTTACTGTCCCCTTCTGGGCTCACTATGCTGCCGCCAGTGGGACTTTGGAAATACAATG  
T V P F W A H Y A A A Q W D F G N T M  
TGTCAACTCTTGACAGGGCTCTATTTTATAGGCTTCTTCTCTGGAATCTTCTTCATCATC  
G Q L L T G L Y F I G F F S G I F F I I  
CTCCTGACAATCGATAGGTACCTGGCTGTGCTCCATGCTGTGTTTGCTTTAAAGCCAGG  
L L T I D R Y L A V V H A V F A L K A R  
ACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACTTGGGTGGTGGCTGTGTTTGCGTCT  
T V T F G V V T S V I T W V V A V F A S  
CTCCCAGGAATCATCTTTACCAGATCTCAAAAAGAAGGTCTTCATTACACCTGCAGCTCT  
L P G I I F T R S Q K E G L H Y T C S S  
CATTTTCCATACA  
H F P Y

59(UPPER:SEQ ID NO 1  
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GAATTCCCCCAACAGAGCCAAGCTCTCCATCTAGTGGACAGGGAAGCTAGCAGCAAACC	59(UPPER:SER 1) NO2
	19(LOWER:SER 1) NO5
TTCCCTTCACTACAAAACCTTCATTGCTTGGCCAAAAAGAGAGTTAATTCAATGTAGACAT	119
	39
CTATGTAGGCAATTAAAAACCTATTGATGTATAAAACAGTTTGCAATTCATGGAGGGCAAC	179
	59
TAAATACATTCTAGGACTTTATAAAAGATCACTTTTTATTATGCACAGGGTGGAACAAG	239
	79
ATGGATTATCAAGTGTCAAGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGC	299
M D Y Q V S S P I Y D I N Y Y T S E P C	99
CAAAAAATCAATGTGAAGCAAATCGCAGCCCGCCTCCTGCCTCCGCTCTACTCACTGGTG	359
Q K I N V K Q I A A R L L P P L Y S L V	119
TTTCATCTTTGGTTTTGTGGGCAACATGCTGGTCATCCTCATCTGATAAACTGCAAAGG	419
F I F G F V G N M L V I L I L I N C K R	139
GTGAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTTCCTT	479
L K S M T D I Y L L N L A I S D L F F L	159
CTTACTGTCCCCTTCTGGGCTCACTATGCTGCCGCCAGTGGGACTTTGGAAATACAATG	539
L T V P F W A H Y A A A Q W D F G N T M	179
AGTCAACTCTTGACAGGGCTCTATTTTATAGGCTTCTTCTCTGGAATCTTCTTCATCATC	599
C Q L L T G L Y F I G F F S G I F F I I	199
CTCCTGACAATCGATAGGTACCTGGCTGTGCTCCATGCTGTGTTTGCTTTAAAAGCCAGG	659
L L T I D R Y L A V V H A V F A L K A R	219
ACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACTTGGGTGGTGGCTGTGTTTGCCTCT	719
T V T F G V V T S V I T W V V A V F A S	239
CTCCCAGGAATCATCTTTACCAGATCTCAAAAAGAAGGTCTTCATTACACCTGCAGCTCT	779
L P G I I F T R S Q K E G L H Y T C S S	259
CATTTTCCATACAGTCAGTATCAATTCTGGAAGAATTTCCAGACATTAAAGATAGTCATC	839
H F P Y S Q Y Q F W K N F Q T L K I V I	279

SEQ ID NO.2 FIG.1b

TTGGGGCTGGTCCTGCCGCTGCTTGTCATGGTCATCTGCTACTCGGGAATCCTAAAACT	899
L G L V L P L L V M V I C Y S G I L K T	299
CTGCTTCGGTGTCGAAATGAGAAGAAGAGGCACAGGGCTGTGAGGCTTATCTTCACCATC	959
L L R C R N E K K R H R A V R L I F T I	319
ATGATTGTTTATTTTCTCTTCTGGGCTCCCTACAACATTGTCTTCTCCTGAACACCTTC	1019
M I V Y F L F W A P Y N I V L L L N T F	339
CAGGAATTCTTTGGCCTGAATAATTGCAGTAGCTCTAACAGGTTGGACCAAGCTATGCAG	1079
Q E F F G L N N C S S S N R L D Q A M Q	359
GTGACAGAGACTCTTGGGATGACGCACTGCTGCATCAACCCCATCATCTATGCCTTTGTC	1139
V T E T L G M T H C C I N P I I Y A F V	379
GGGAGAAGTTCAGAACTACCTCTTAGTCTTCTTCCAAAAGCACATTGCCAAACGCTTC	1199
G E K F R N Y L L V F F Q K H I A K R F	399
TGCAAATGCTGTTCTATTTTCCAGCAAGAGGCTCCCGAGCGAGCAAGCTCAGTTTACACC	1259
C K C C S I F Q Q E A P E R A S S V Y T	419
CGATCCACTGGGGAGCAGGAAATATCTGTGGGCTTGTGACACGGACTCAAGTGGGCTGGT	1319
R S T G E Q E I S V G L *	439
GACCCAGTCAGAGTTGTGCACATGGCTTAGTTTTTCATACACAGCCTGGGCTGGGGGTNGG	1379
	459
TTGGNNGAGGTCTTTTTTAAAAGGAAGTTACTGTTATAGAGGGTCTAAGATTCATCCATT	1439
	479
TAATTTGGCATCTGTTTAAAGTAGATTAGATCCGAATTC	

SEQ ID NO.2 (SUITE)

FIG.1c

GAATTCCTCCCAACAGAGCCAAGCTCTCCATCTAGTGGACAGGGAAGCTAGCAGCAAACC  
 TTCCTTCACTACAAAACCTTCATTGCTTGGCCAAAAGAGAGTTAATTCAATGTAGACAT  
 CTATGTAGGCAATTAAAAACCTATTGATGTATAAAACAGTTTGCATTCATGGAGGGCAAC  
 TAAATACATTCTAGGACTTTATAAAAGATCACTTTTTTATTTATGCACAGGGTGGAACAAG  
 ATGGATTATCAAGTGTCAAGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGC  
 M D Y Q V S S P I Y D I N Y Y T S E P C  
 CAAAAATCAATGTGAAGCAAATCGCAGCCCGCCTCCTGCCTCCGCTCTACTCACTGGTG  
 Q K I N V K Q I A A R L L P P L Y S L V  
 TTTTCATCTTTGGTTTTTGTGGGCAACATGCTGGTCATCCTCATCCTGATAAACTGCAAAAGG  
 F I F G F V G N M L V I L I L I N C K R  
 GTGAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTTCCTT  
 L K S M T D I Y L L N L A I S D L F F L  
 GTTACTGTCCCTTCTGCGGCTCACTATGCTGCCGCCAGTGGGACTTTGGAAATACAATG  
 L T V P F W A H Y A A A Q W D F G N T M  
 TGTCAACTCTTGACAGGGCTCTATTTTATAGGCTTCTTCTCTGGAATCTTCTTCATCATC  
 C Q L L T G L Y F I G F F S G I F F I I  
 CTCCTGACAATCGATAGGTACCTGGCTGTCGTCCATGCTGTGTTTGCTTTAAAAGCCAGG  
 L L T I D R Y L A V V H A V F A L K A R  
 ACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACTTGGGTGGTGGCTGTGTTTGCGTCT  
 T V T F G V V T S V I T W V V A V F A S  
 CTCCCAGGAATCATCTTTACCAGATCTCAAAAAGAAGGTCTTCATTACACCTGCAGCTCT  
 L P G I I F T R S Q K E G L H Y T C S S  
 CATTTTCCATACATTAAAGATAGTCATCTTGGGGCTGGTCCTGCCGCTGCTTGTTCATGGT  
 H F P Y I K D S H L G A G P A A A C H G

59(UPPER:SEQ ID NO.3)  
 19(LOWER:SEQ ID NO.6)

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SEQ ID NO.3

FIG.1d

CATCTGCTACTCGGGAATCCTAAAACTCTGCTTCGGTGTGAAATGAGAAGAAGAGGCA	899
H L L L G N P K N S A S V S K *	299
CAGGGCTGTGAGGCTTATCTTCACCATCATGATTGTTTATTTTCTCTTCTGGGCTCCCTA	959
	319
CAACATTGTCCTTCTCCTGAACACCTTCCAGGAATTCTTTGGCCTGAATAATTGCAGTAG	1019
	339
CTCTAACAGGTTGGACCAAGCTATGCAGGTGACAGAGACTCTTGGGATGACGCACTGCTG	1079
	359
CATCAACCCCATCATCTATGCCCTTTGTCGGGGAGAAGTTCAGAACTACCTCTTAGTCTT	1139
	379
CTTCCAAAAGCACATTGCCAAACGCTTCTGCAAATGCTGTTCTATTTTCCAGCAAGAGGC	1199
	399
TCCCGAGCGAGCAAGCTCAGTTTACACCCGATCCACTGGGGAGCAGGAAATATCTGTGGG	1259
	419
CTGTGACACGGA CTCAAGTGGGCTGGTGACCCAGTCAGAGTTGTGCACATGGCTTAGTT	1319
	439
TTTCATACACAGCCTGGGCTGGGGGTNGGTTGGNNGAGGTCTTTTTTAAAAGGAAGTTACT	1379
	459
GTTATAGAGGGTCTAAGATTCATCCATTTATTTGGCATCTGTTTAAAGTAGATTAGATCC	1439
	479
GAATTC	

SEQ ID NO.3 (SUITE)

FIG.1e

FIG. 2

I		II	
CCR5	1 M Q V S S P I D I N Y T S E F C Q K I N V K Q I A A R L L P P L Y S L V E I F G F V G N M L V I L I L I N C K R L K S M T D I Y L L N L A I S D I F F I T	83	
hcc-R2b	M L S T S R S R F T R N I N E S G E E V T T F T Y D Y G A P C I K F T V K Q I A A R L L P P L Y S L V E I F G F V G N M L V I L I L I N C K R L K S M T D I Y L L N L A I S D I F F I T	95	
hcc-R3	M T T S I I I V E T F G T S Y Y D D V G L I I E K A D T R A I M A Q F V P P L Y S L V E I F G F V G N M L V I L I L I N C K R L K S M T D I Y L L N L A I S D I F F I T	8	
hcc-R1	M E T P N T E D Y D T T E F C Y G D A T F C Q K V N E R A F G Q L L P P L Y S L V E I F G F V G N M L V I L I L I N C K R L K S M T D I Y L L N L A I S D I F F I T	87	
hcc-R4	M N P T D I A D T L D E S I Y S N Y L Y E S I P K P T K E G I K A F G E L L P P L Y S L V E I F G F V G N M L V I L I L I N C K R L K S M T D I Y L L N L A I S D I F F I T	92	
III		IV	
CCR5	V P F W A H Y A A Q W D F G N I M C Q L L T G I Y F I G F F S G I F F T I L L T I D R Y I A V H A V F A I K A R T V T F G V T S V I T W V A V F A S L P G I I F T R Q K E G I	177	
hcc-R2b	I P L W A I F A A N E W F G N A M C K I F T G L Y H I G Y E F A I I F F E I I L T I D R Y I A V H A V F A I K A R T V T F G V T S V I T W V A V F A S L P G I I F T R Q K E G I	189	
hcc-R3	I P F W I I V Y R G I N W F C I C M C N L I S G F Y H I T K L Y E E I F F I L L T I D R Y I A V H A V F A I K A R T V T F G V T S V I T W V A V F A S L P G I I F T R Q K E G I	182	
hcc-R1	I P F W I I V Y R G I N W F C I C M C N L I S G F Y H I T K L Y E E I F F I L L T I D R Y I A V H A V F A I K A R T V T F G V T S V I T W V A V F A S L P G I I F T R Q K E G I	182	
hcc-R4	I P F W G Y A A I Q W F E G L G I C K M I S W M Y L V G E Y S G I F F E V M M S I D R Y I A V H A V F A I K A R T V T F G V T S V I T W V A V F A S L P G I I F T R Q K E G I	186	
V		VI	
CCR5	Y T C S I H F P Y S Q Y Q F W K N F O T L K I V I L G L V L P L L V M V I C Y S G I L K T I L R C R N E K K R H R A V R L I F T I M I V Y F L E W A P Y N I V L L I N T F Q E F F G I N N C	272	
hcc-R2b	I M G I P T H G . . . M N E H I I T M R N I I G L V L P L I I M V I C Y S G I L K T I L R C R N E K K R H R A V R L I F T I M I V Y F L E W A P Y N I V L L I N T F Q E F F G I N N C	280	
hcc-R3	T I I A L Y E D T V Y S W R H E I I T R M T I F C I V I P L L V M I C Y I G I K F L L R C P E K K Y K A I R I I F V I M A V F F I F W I P Y P V A I L I S S Y I S I L F C I	27	
hcc-R1	H C S I H F W H E S L R E W K F C A L K L N L F G L V L P L L V M I I C Y I G I K F L L R R N E K K S K A V R L I E V I M I I F F L E W I P Y N I L T I I I S V F Q L E L F T H E C	276	
hcc-R4	T Y C K T K Y S I N S T T W K V L S S E I N I L G L V I P I G I M I E C Y S M I R T I Q H K N E K K N K A V K M I F A V V V L F L G E W P P Y N I V I F I E T L V E L E V I Q D C	279	
VII		VIII	
CCR5	S S S N R I D Q A M Q V T E T L G M T H C C I N P I I Y A F V G E K F R N Y L L V F E C K H T A K R F C K C S I E Q F A E R A S S V Y I K S T G E Q E I S V 31	352	
hcc-R2b	F P S Q I D Q A I Q V T E T L G M T H C C I N P I I Y A F V G E K F R Y I S V F E K H I F C K C P V E Y R E I V D G V T I T N I F S T G E Q E N S A 31	360	
hcc-R3	E I R K H I I D V I V T E V T A Y S H C C I N I V I Y A F V G R R E R N Y I R H I P E H I I L M I I G R Y T P L P E R I E R I S S V I S I S I A F F E I S I V F	355	
hcc-R1	E L E K H I I D A M Q V T E V I A Y T H C C I N I V I Y A F V G E R E F K Y I R Q I E H R R A V I I I M W I P F L S V D R I E R M S E T S I S T G E I E S A G I E	355	
hcc-R4	T F E R Y L D A I Q A T E T A F V H C C I N P I I Y E L G E K F R K Y I I Q I E K G L F V I Q Y C G L I I Y S A D T H S S Y T Q S T M D H L H D A I	360	

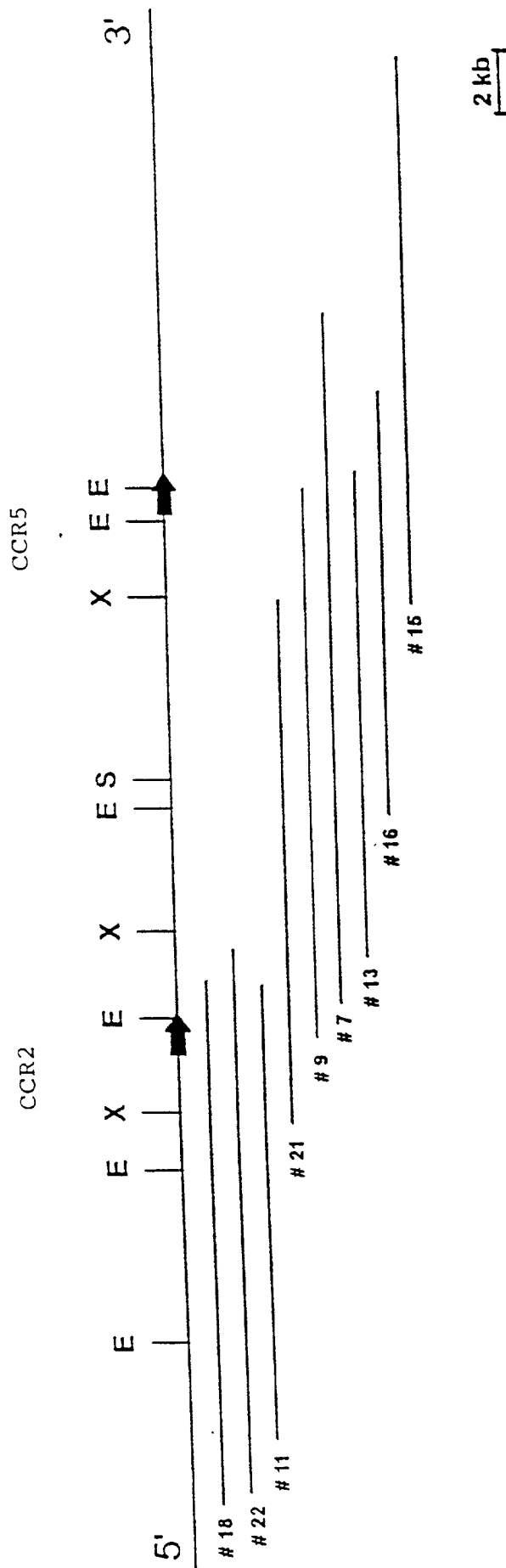


FIG. 3

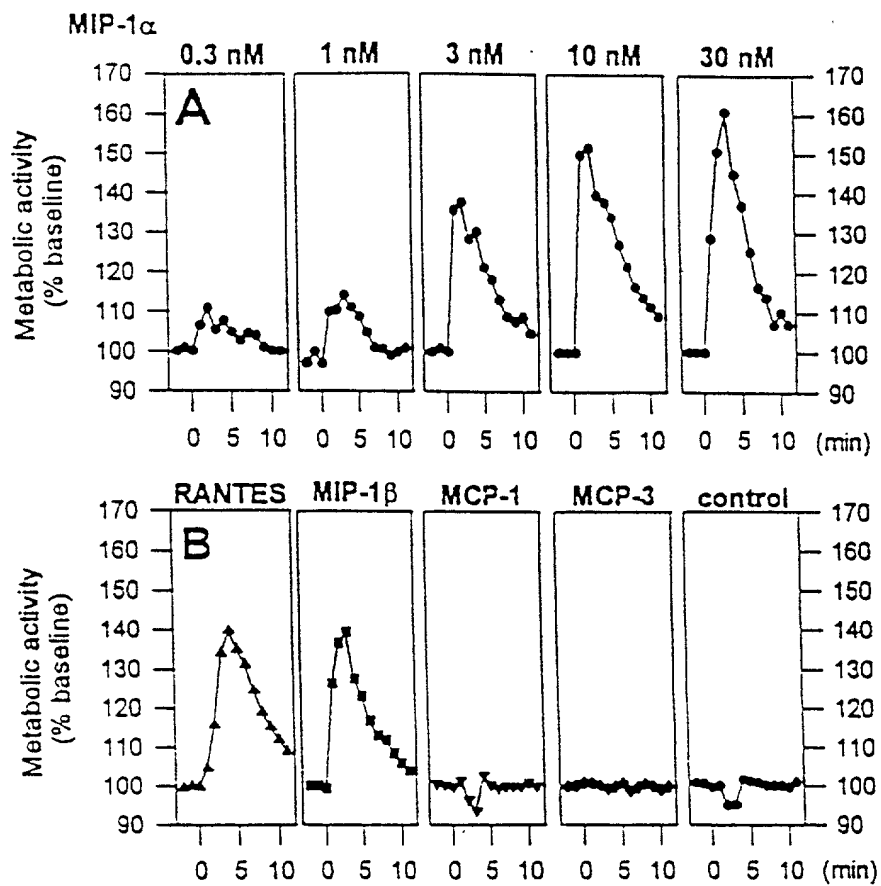


FIG. 4a

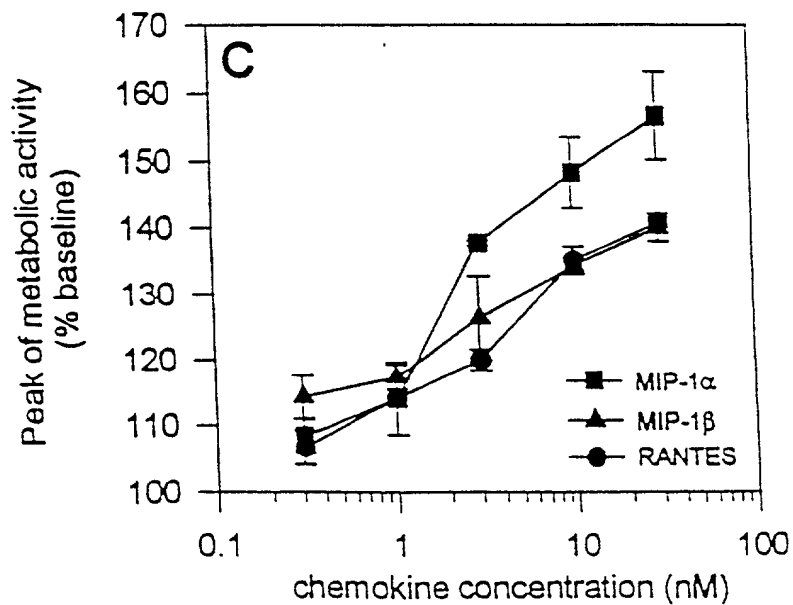


FIG. 4b

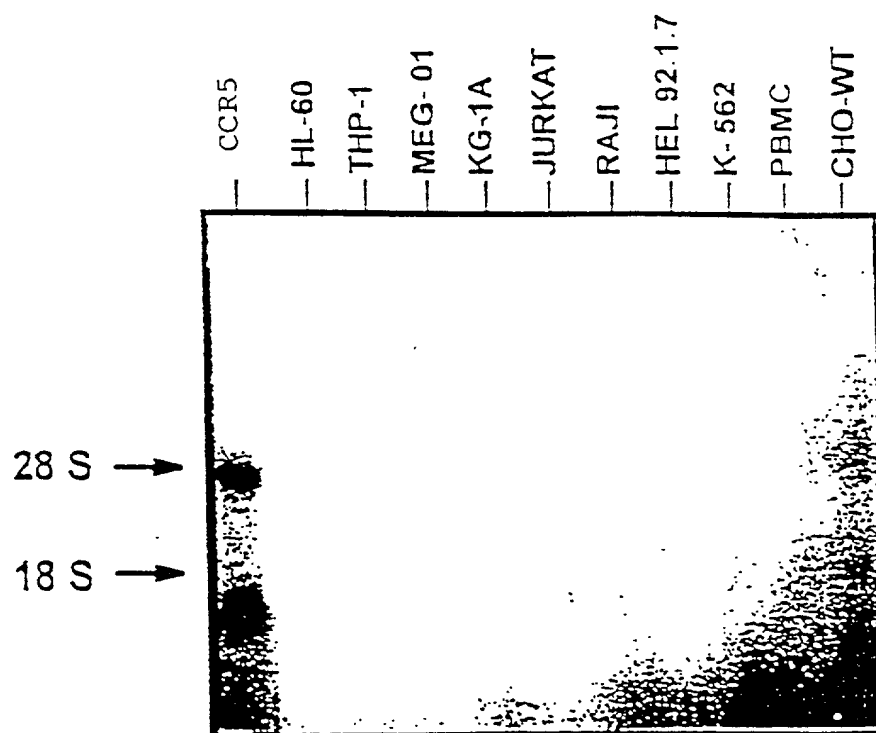


FIG. 5

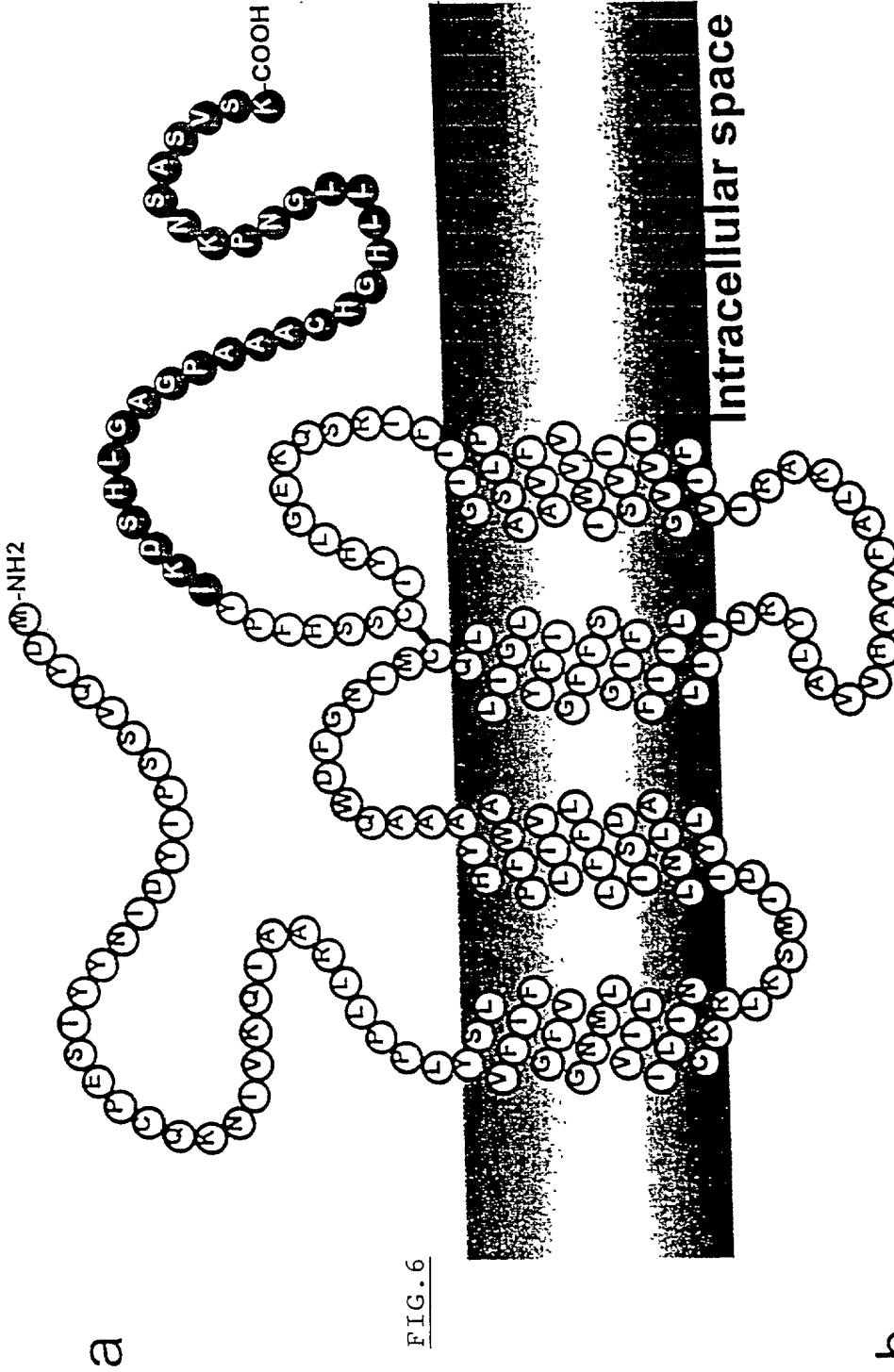
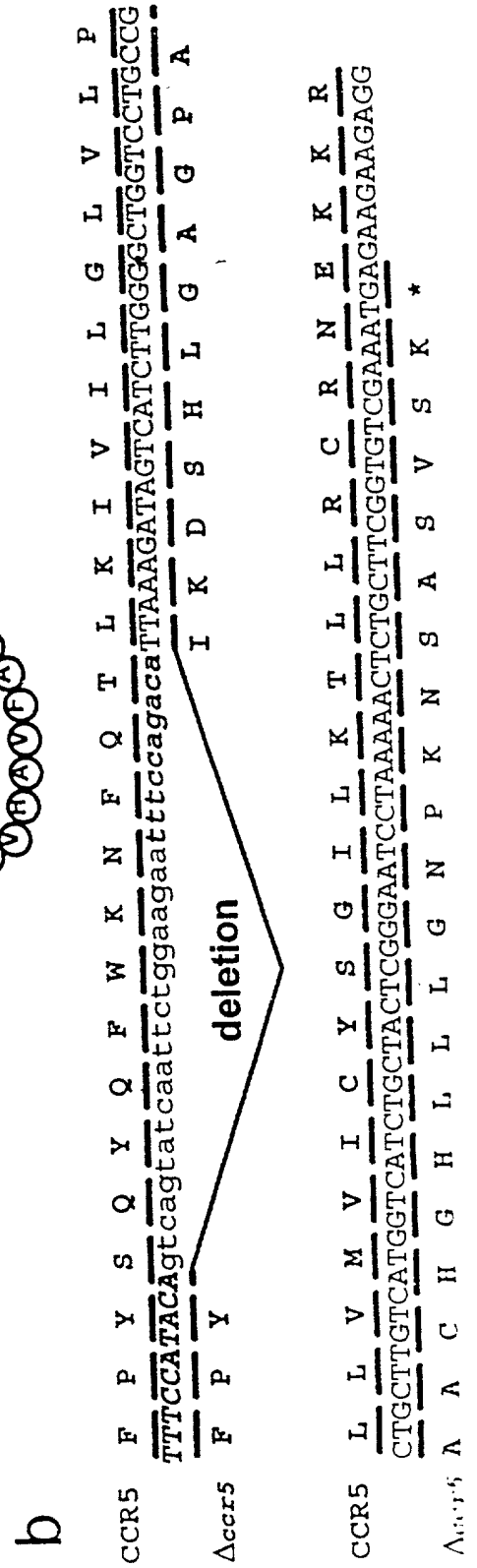
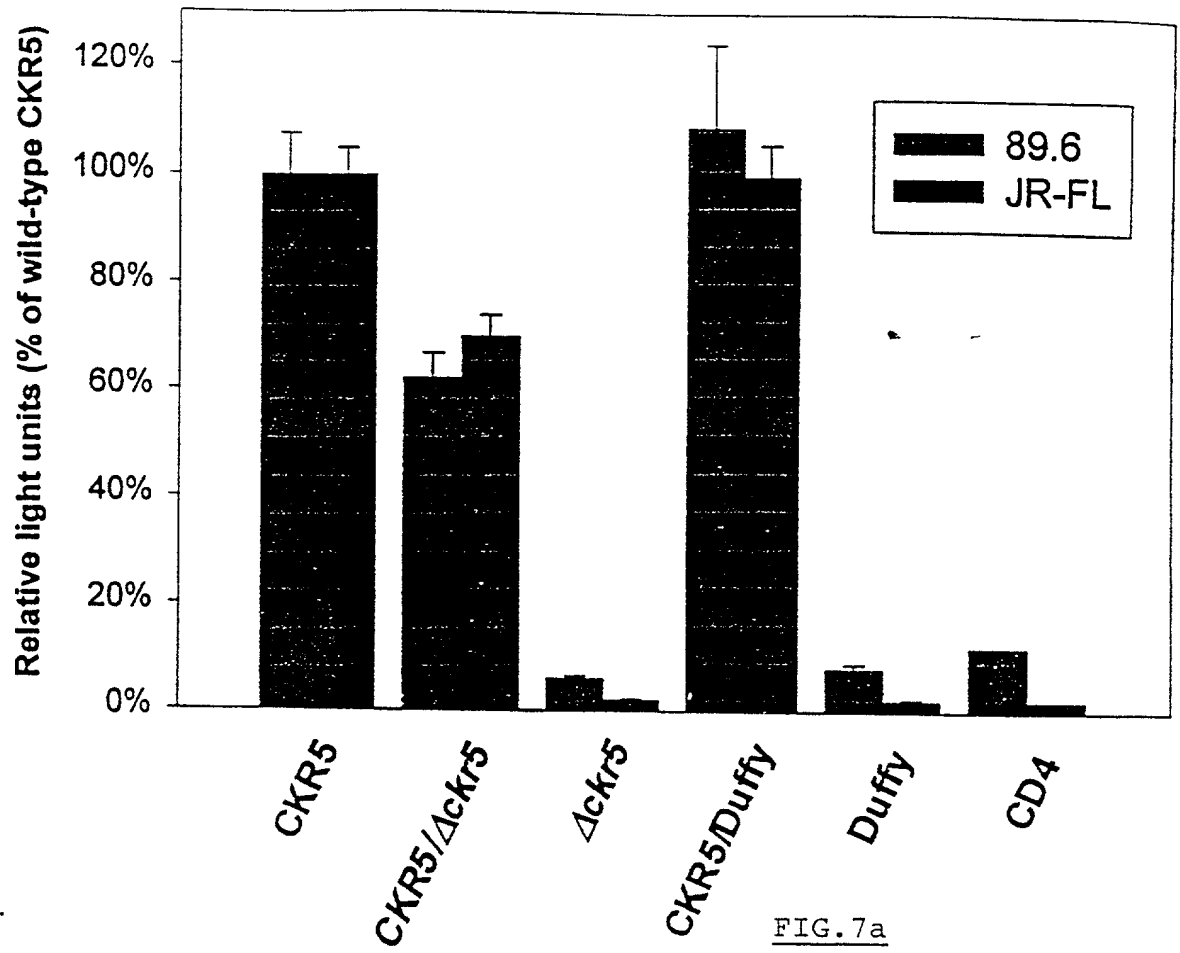


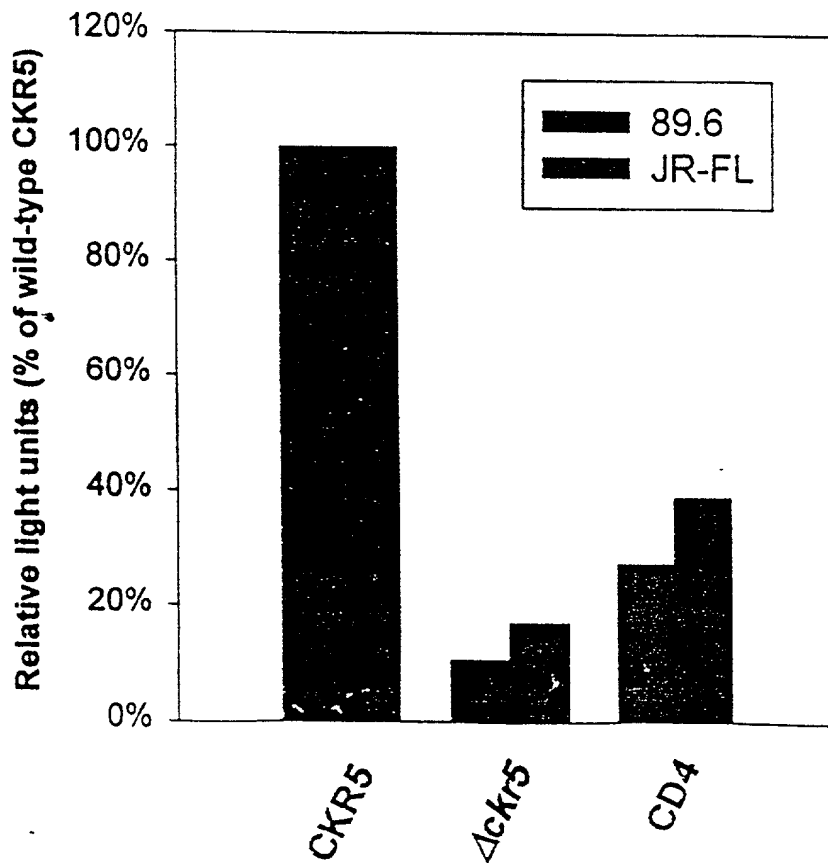
FIG. 6



A.



B.



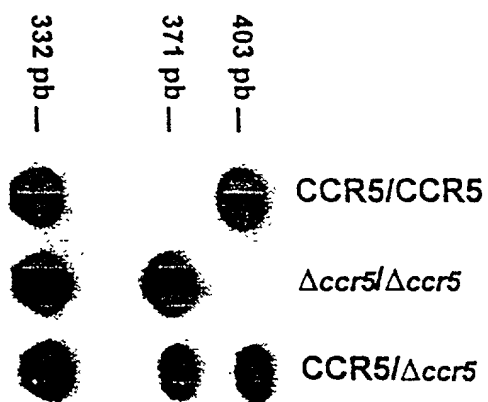


FIG. 8

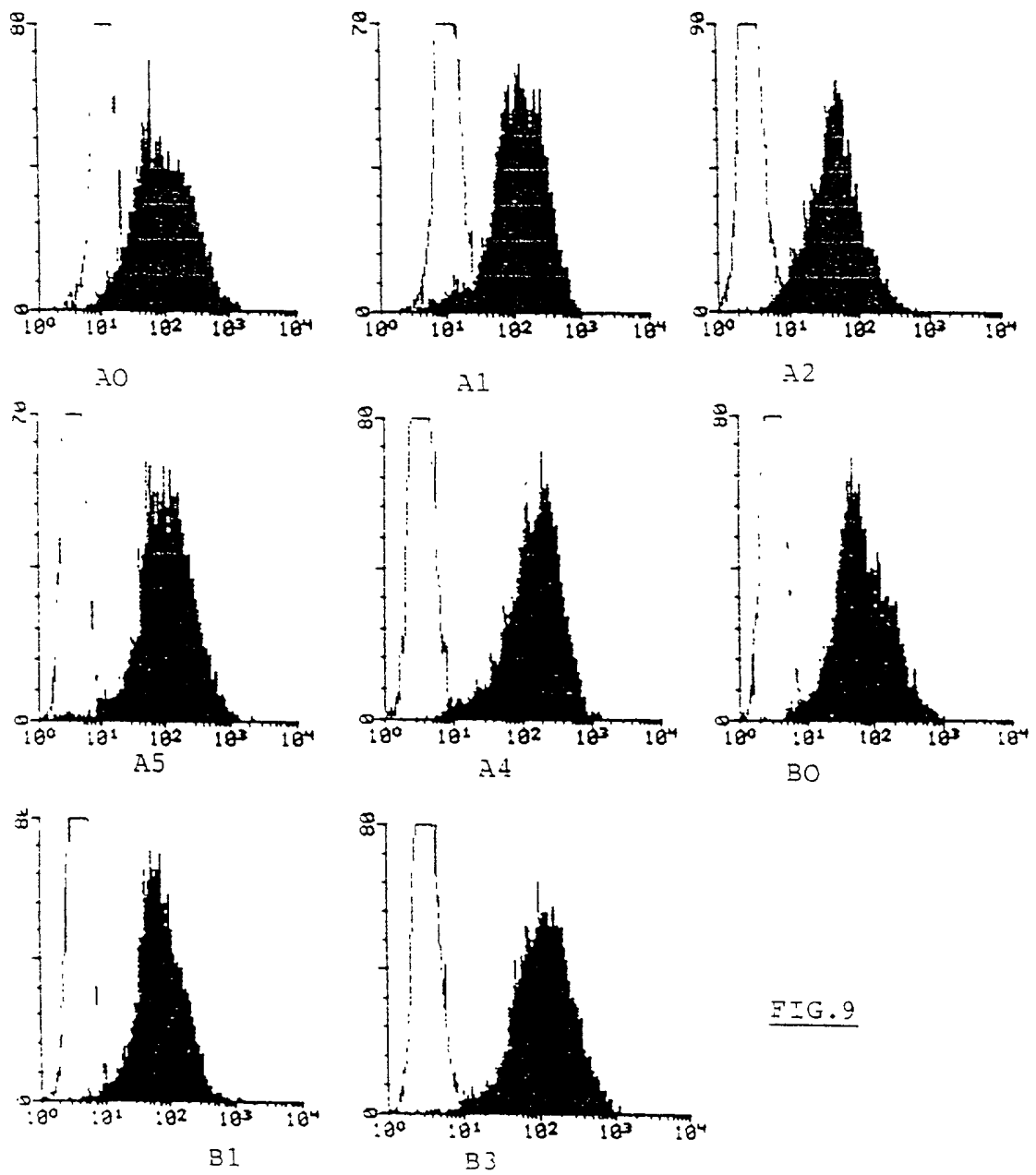


FIG. 9

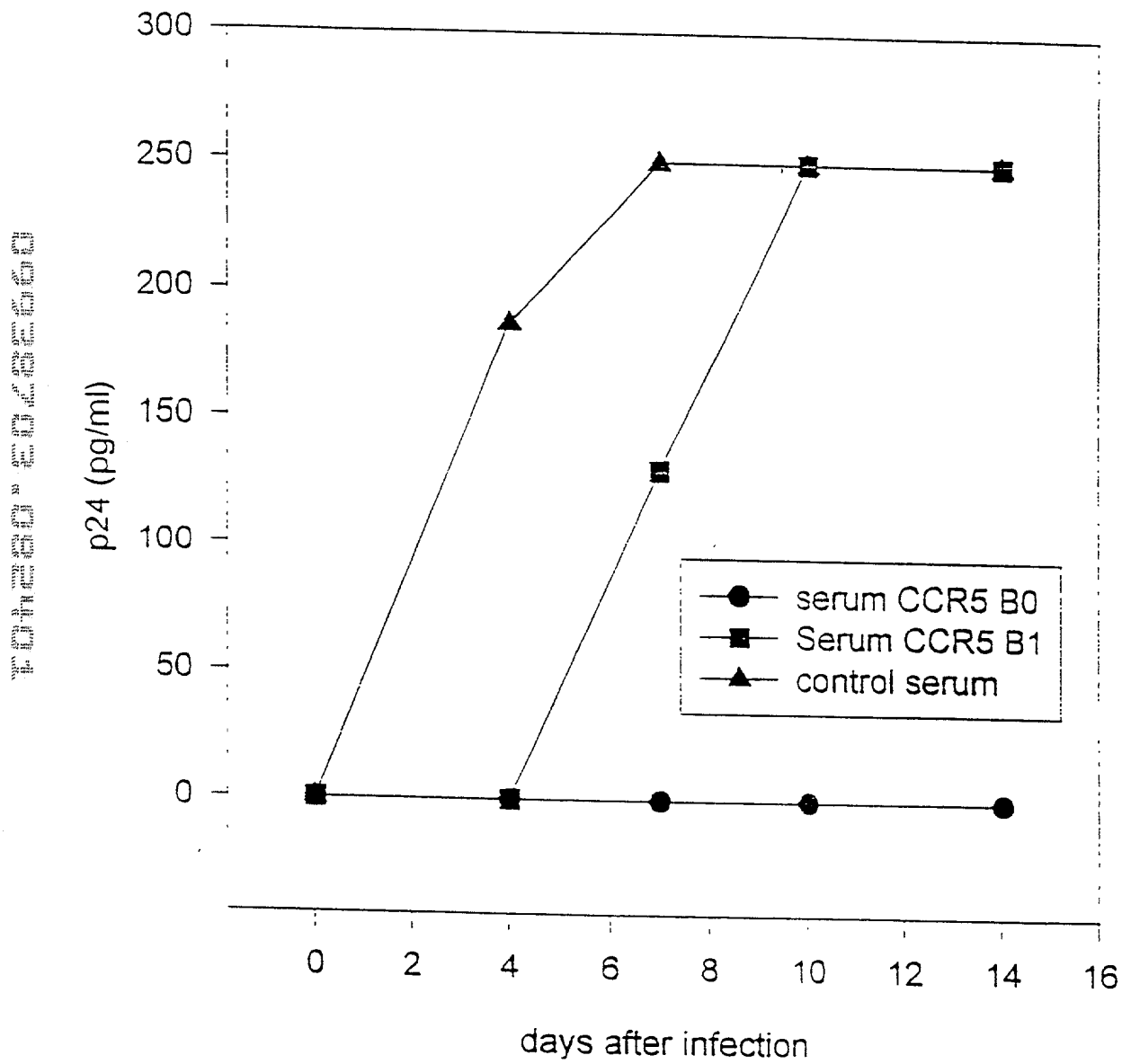


FIG.10